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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,107	07/15/2003	Seiichiro Yamashita	125A 3448	8611

7590 06/15/2007
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EXAMINER

DANG, HUNG Q

ART UNIT	PAPER NUMBER
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2612

MAIL DATE	DELIVERY MODE
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06/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/620,107	Applicant(s) YAMASHITA ET AL.	
	Examiner Hung Q. Dang	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/12/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to application's amendment dated 1/12/2007. The amended claims 1, 3, 5, 10 and 13 have been entered. The supplemental amendment dated 2/15/2007 has not been entered.

Response to Arguments

2. Applicant's arguments filed on 1/12/2007 have been fully considered but they are not persuasive. Applicant asserts that the prior art does not teach or disclose **functional information** being send from the connection assembly to the main body. The examiner disagrees with the applicant. The examiner asserts that the information necessary for driving said connection assembly is **the identification signal**, which is indeed **functional information**. The function of the identification signal, in this case, serves to identify the connection assembly in order for the main apparatus to control said connection assembly.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7,8, 10-12 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's prior art admission.

Regarding claim 1, applicant's prior arts admission teaches a connection assembly (Figure 14, unit 101) detachably connected to a main body of a dental apparatus for use in dental diagnosis and treatment, wherein said connection assembly has a communication means for sending to said main body functional information necessary for driving said connection assembly (Figure 14; page 2 of the specification states that "... upon connecting the instrument 101 to the main body of the apparatus, **identification signals** are actively output for individually identifying the instrument 101 to the main body of the apparatus from the identification signal output means 106 via the connection terminal 106e. **Then the main body of the apparatus specifies which instrument is connected to supply driving power, water, air and so on corresponding to the connected instrument, thereby setting a display or a control program of the apparatus suitable for the connected instrument.** Therefore, different kinds of diagnosis can be executed comfortably by sequentially attaching, detaching and connecting plural kinds of instruments to the same connection part". The **functional information**, in this case, necessary for driving said connection assembly is **the identification signal**).

Regarding claim 2, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a parallel output type of communication means (Figure 14, units 106s indicates parallel output).

Regarding claim 3, the communication means of the connection assembly disclosed by applicant's prior arts admission also includes a storage means for

memorizing and storing said information (identification information; page 2 lines 13-15 and lines 26-33 of the specification).

Regarding claim 4, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a communication integration element (Figure 14, unit 106 and page 2 of the specification).

Regarding claim 5, the information stored in the connection assembly disclosed by applicant's prior arts admission includes an identification information for identifying said connection assembly (page 2 lines 26-36 of the specification).

Regarding claim 7, the connection assembly disclosed by applicant's prior arts admission also includes a connection assembly part for detachably connecting said connection assembly to said main body, wherein said connection part constitutes a multi-junction connection (Figure 14 and page 2 lines 5-9).

Regarding claim 8, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a passive element electrically connected to the main body (page 2 lines 30-34' of the specification indicates that the main body of the apparatus specifies with instrument is connected to supply **driving power**to the connected instrument, which implies that the communication means is a passive element).

Claims 10-12 and 14 are rejected similarly as claim 1. The connection assembly disclosed by applicant's prior arts admission also includes communication means for sending and receiving information on said connection assembly to and from said main body of said dental apparatus, and wherein function to be achieved by said

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connection assembly is realized cooperating with said connection assembly by the information obtained from said communication means upon connecting said connection assembly to said main body of said dental apparatus (page 2 lines 30-37 of the specification "....to supply driving power**setting a display**.....or a **control program** of the apparatus suitable for the connected instrument....").

Regarding claim 15, the wiring to a connection part for detachably connecting said connection assembly to the main body disclosed by applicant's prior arts admission is also a multi-branch structure (Figure 14b, units 106Es constitute a multi-branch structure). The multi-branch structure (106Es) on the connection assembly disclosed by the applicant's prior art admission implies that there is a corresponding multi-branch structure on the main body so that the multi-branch structure of the connection assembly can be connected to said body.

Claim 16 is rejected for the same reasons as claim 5.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's prior arts admission.

Regarding claim 9, applicant's prior arts admission on page 2 of specification teaches the connection assembly as claimed in claim 1, except wherein connection assembly includes a chargeable battery.

Applicant's prior arts admission also discloses conventional dental apparatuses that equipped with rechargeable battery as a self-driving source to be controllable and chargeable (page 1 lines 1-25 of the specification).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a rechargeable battery to the connection assembly disclosed by applicant's prior arts admission so that said connection assembly can be a self-driving source and chargeable.

Regarding claim 6, applicant's prior arts admission discloses the connection assembly as set forth in claim 1 for having an identification signal output means, without specifying a nonvolatile storage means and wherein voltage level signals of which have height value is varied at a predetermined repetition cycle or frequency identification signals of which frequency is varied is used as an identification signal from said identification signal output means. However, examiner takes official notice that using varied voltage level signals or varied frequency signals as identification signals have been conventionally utilized in many communication applications. Therefore, by conventionality, it would have been obvious to one skilled in the art to use either varied voltage level signal or varied frequency signal as the identification signal of the connection assembly disclosed by applicant's prior arts admission.

Allowable Subject Matter

7. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 13, the prior arts of record fail to teach or disclose a dental apparatus for use in dental diagnosis and treatment as set forth in claim 10 or ~~11~~, wherein a management of usage history and the distinction of using operator of the specified connection assembly can be executed, when said connection assembly is specified based on the information obtained from said connection assembly. B8

Conclusion


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571) 272-3069. The examiner can normally be reached on 9:30AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hung Q Dang
5/23/2007
H.D.



BRIAN ZIMMERMAN
PRIMARY EXAMINER